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Specialist Report for Wilderness
and
Special Designated Areas



SPECIALIST REPORT
For
Wilderness
And
Special Designated Areas

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Abstract:

Wilderness

Potential and existing Wilderness areas could be threatened when resource management activities either within or adjacent to these areas change human patterns or ecological values in a manner that diminishes Wilderness character or values. Threat to Wilderness characteristics and values was the measure used in this report to evaluate the effects of the range of alternatives in the final Roadless Area Conservation Environmental Impact Statement. Of the 58.5 million acres of inventoried roadless areas on National Forest System lands, approximately 20 million acres are adjacent to designated Wilderness areas. Inventoried roadless areas are the “reservoir” for future designated Wilderness areas. Alternative 1 has the highest threat to designated and potential Wilderness in relation to Alternatives 2, 3, and 4. This alternative would provide the least protection to Wilderness areas because under this alternative no national prohibitions on road construction or reconstruction would be applied to inventoried roadless areas. An increase in resource management activity and a reduction in ecological integrity in and around potential and designated Wilderness would increase the threat to their Wilderness characteristics and values. Because this alternative would provide the least protection for inventoried roadless areas, the greatest potential reduction of the “reservoir” of future Wilderness areas would also exist under this alternative.

Special Designated Areas

Certain areas of NFS lands (not designated as Wilderness) that contain outstanding examples of plant and animal communities, geological features, scenic grandeur, or other special attributes, merit special management. There are approximately 6 million inventoried roadless area acres in special designated categories. Of this, about 1.2 million acres (20%) have management prescriptions that permit road construction. If road construction, reconstruction, and timber harvest continue to occur in the inventoried roadless areas portion of these special designated areas, then the acres available for dispersed recreation opportunities in Semi-Primitive Motorized (SPM), Semi-Primitive Non-Motorized (SPNM), and Primitive (P) Recreation Opportunity Spectrum (ROS) classes would decrease. Alternative 1 would provide the most flexibility to local land managers of special designated areas to meet developed and dispersed recreation needs within the context of the law or order that established the area, and opportunities to shift from P, SPM, and SPNM settings to road based and developed classes of recreation would increase under this alternative. Although Alternatives 2 through 4 would provide less flexibility than Alternative 1 to local land managers of special designated to meet developed and dispersed recreation needs within the context of the law or order that established the area, over the long term, these alternatives would maintain the highest relative supply of lands with dispersed recreation potential. Conversely, these alternatives would result in a lower supply of lands than in Alternative 1 with developed recreation potential or with access for forest visitors seeking road based or developed recreation experiences.

Changes between Draft and Final:

- The indirect and cumulative effects discussion was expanded in the Wilderness section of the FEIS.
- Parts of the cumulative effects were shifted to comparison of the alternatives discussion in the FEIS.
- Definitions were revised for clarity and consistency, and new definitions were added.
- Some references were revised.
- *Special Designated Areas*, a new section, was added to the FEIS.

Affected Environment

Wilderness

The National Wilderness Preservation System (NWPS) includes almost 105 million acres; of these, approximately 34.7 million acres are on NFS lands. Designated Wilderness areas are managed to preserve their primeval character and maintain a condition affected primarily by the forces of nature. Wilderness protects biodiversity (especially in the West and Alaska), is valuable scientifically and educationally, is a benchmark for ecological studies, and preserves historical and natural features (refer to FEIS, Chapter 3, Biodiversity for additional discussion of Wilderness values). Wilderness provides vast areas for solitude, primitive and unconfined recreation, sacred sites, and opportunities to experience adventure, challenge, and self-reliance. Congress has the sole authority for designating additions to the NWPS (Hendee and others 1990).

Potential Wilderness areas are identified in Forest Service land management plans, and have prescriptions to preserve their Wilderness attributes. Congress considers the recommendations in land management plans for additions to the NWPS; however, Congress could designate fewer or more acres as Wilderness depending on its own analysis.

Approximately 4.2 million acres of inventoried roadless areas are managed to maintain Wilderness attributes, 20 million acres restrict road construction and reconstruction, and 34.3 million acres are open to road construction, reconstruction, timber harvest, and other resource management developments. A substantial number of inventoried roadless areas are near or adjacent to designated Wilderness areas. Of the 58.5 million acres of inventoried roadless area, 20 million acres are adjacent to designated Wilderness areas (see FEIS, Chapter 3, Biodiversity, Size Considerations for more information on adjacency).

Inventoried roadless areas near or adjacent to designated Wilderness, serve as a natural transitions between lands with road based resource management activities and lands affected substantially by natural processes.¹ Maintaining the roadless character of these transition areas would sustain existing levels of Wilderness value protection because inventoried

¹ The Forest Service is mindful that Congress did not intend Wilderness designations to compel the creation of protective perimeters or buffer zones around Wilderness Areas. Congress has made clear that the fact that non-Wilderness activities or uses can be seen or heard from within any Wilderness Area shall not, of itself, preclude such activities or uses up to the boundary of Wilderness Areas. The Forest Service may consider the effects on a Wilderness Area in determining the uses of adjoining lands, however, as long as the Agency considers other factors as well in its decisions concerning the adjoining lands. The purpose of this portion of the FEIS is to disclose potential consequences of the proposed action and alternatives to Wilderness resources to fulfill the Agency's responsibilities under NEPA. The Forest Service estimates that 34% of the inventoried roadless areas are adjacent to designated Wilderness Areas.

roadless areas adjacent to or near Wilderness areas are usually more accessible than Wilderness and provide an alternative location for recreation uses. Any additional distance between Wilderness areas and intense management activities provides greater opportunities for natural processes (for example allowing fire to play a natural role or maintaining the integrity of wildlife habitat) to occur uninterrupted.

Some of the key characteristics of inventoried roadless areas lie in their unique Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized recreation opportunities (refer to FEIS, Chapter 3, Recreation for a discussion of the Recreation Opportunity Spectrum). Activities that are prohibited in designated Wilderness Areas and that are not readily available in areas with classified roads can occur in inventoried roadless areas. These areas provide popular, appropriate alternatives to Wilderness Areas because, although they contain many Wilderness attributes, a wider range of recreation opportunities with fewer restrictions is available.

Of the 58.5 million acres of inventoried roadless areas, 41% are covered by land management-plan prescriptions that restrict road construction and reconstruction. Inventoried roadless areas open to road construction or reconstruction could be affected in the short term, and even those that currently restrict road building could be affected over the long term as local conditions and situations change.

Special Designated Areas

Certain specific areas of NFS lands (not designated as Wilderness) that contain outstanding examples of plant and animal communities, geological features, scenic grandeur, or other special attributes merit special management. These areas are designated by law or may be designated administratively by executive order or through Agency planning efforts as special areas. Areas so designated are managed to emphasize specific values identified in their enabling legislation or order such as recreation, geology, or history. Other uses are permitted in the areas to the extent that these uses are in harmony with the purpose for which the area was designated.

Inventoried roadless areas in the following NFS special areas were considered in this rulemaking:

- National Primitive Areas,
- National Scenic Research Areas,
- National Scenic Areas,
- National Wild and Scenic Rivers,
- National Recreation Areas,
- National Game Refuges and Wildlife Preserves,
- National Monuments,
- National Volcanic Monuments,
- National Historic Areas,
- Wilderness Study Areas,
- Research Natural Areas, and
- Other congressionally designated areas.

The law or executive or administrative order designating each area provides specific objectives and guidelines for management of the area. Some designations are prescriptive with management details written into the law (eight management areas depicted on a map in the Smith River National Recreation Area Act). Others designations are more descriptive, providing the Forest Service with more management discretion (for example, the provisions for general purpose, prohibitions, and exceptions identified in the Presidential proclamation creating the Sheep Mountain National Game Refuge and Wildlife Preserve in Wyoming). Despite these differences, the Agency's policies that guide management of most special areas have some similarities. The Forest Service manages each special area as an integral part of NFS lands, with emphasis on the primary values and resources as directed by the law or order that established the area. Then the Forest Service manages values or resources not emphasized or prohibited by the establishing law or order in a manner that is complementary or enhances the primary values of the area and are compatible with overall NFS land management objectives. Lastly, special areas are managed as showcases to demonstrate resource management programs, service, and facilities.

With the exception of National Game refuges, Wildlife Preserves, and Research Natural Areas, one of the objectives for special area management involves providing for public outdoor recreation opportunities. However, the special values (that is, scenic, cultural, historic, wildlife, geologic, or other values) and attributes must be protected. Other resource values in the area are managed to enhance public recreation values or the special attributes of the area.

As indicated in Table 1, there are approximately 6 million inventoried roadless area acres in special designated categories. Of this, about 1.2 million acres (20%), identified in land management plans or other completed assessments, allow road construction or reconstruction. There are approximately 4.8 million acres (80%) that do not allow road construction or reconstruction. Of this, 2.1 million acres (35%) are further recommended, in land management plans or other assessments, for addition to the National Wilderness Preservation System. Table 1 displays the inventoried roadless area acreage by type of special designated area and management prescription.

The demand for motorized and non-motorized dispersed recreation opportunities is increasing (Cordell and others 1999). Demand for special use permits to provide outfitting and guiding services is also on the rise (see FEIS, Chapter 3, Recreation Special Uses, Dispersed Recreation Activities or Specialist Report for Recreation and Recreation Special Uses). A key characteristic of inventoried roadless areas is their ability to supply P (Primitive), SPNM (Semi-Primitive Non-Motorized), and SPM (Semi-Primitive Motorized) settings for a wide range of dispersed recreation activities (see FEIS, Chapter 3, Recreation, Dispersed Recreation Activities or Specialist Report for Recreation and Recreation Special Uses). Maintaining inventoried roadless areas in their present condition is generally more compatible with categories of special designated areas which feature dispersed recreation (or don't emphasize recreation at all) in their management plans. Examples of these areas are National Primitive Areas, National Scenic Research Areas, National Wild and Scenic Rivers, National Game Refuges and Wildlife Preserves, Wilderness Study Areas, and Research Natural Areas.

At the same time, the demand for new developed and road based recreation is also increasing (Cordell and others 1999) (see FEIS, Chapter 3, Recreation, Developed Road Based Recreation Activities or Specialist Report for Recreation and Recreation Special Uses). This demand affects developments managed by both the public and private sectors. New developed recreation would likely expand into or occur in roadless areas.

Table 1. Special designated areas, in thousand acres, on National Forest System lands.

| | | Inventoried roadless areas allocated to a prescription . . . | | | Total |
|----------------------------------|-------------------------------|--|---|--|--------------|
| | | ...that do not allow road construction and reconstruction | ...that allow road construction and reconstruction, and the land management plan recommends as Wilderness | ...that allow road construction and reconstruction | |
| Areas with single designations | National summary ^a | | | | |
| | NGRWP | 0 | 0 | 56 | 56 |
| | NM | 79 | 0 | 0 | 79 |
| | NRA | 214 | 212 | 749 | 1,175 |
| | NSA | 51 | 0 | 0 | 51 |
| | NVM | 25 | 0 | 2 | 27 |
| | NWSR | 81 | 0 | 81 | 162 |
| | NSRA | 1 | 0 | 2 | 3 |
| | OCD | 1,266 | 16 | 50 | 1,332 |
| | RNA | 166 | 28 | 55 | 249 |
| | WSA | 782 | 1,820 | 194 | 2,796 |
| Areas with multiple designations | NM NWSR | 4 | 0 | 0 | 4 |
| | NM OCD | 23 | 0 | 0 | 23 |
| | NM OCD NWSR | 2 | 0 | 0 | 2 |
| | NRA NWSR | 11 | 0 | 11 | 22 |
| | NRA RNA | 4 | 0 | 0 | 4 |
| | NWSR OCD | 1 | 0 | 0 | 1 |
| | NWSR RNA | 0 | 0 | 1 | 1 |
| | OCD NRA | 1 | 0 | 0 | 1 |
| | OCD RNA | 12 | 0 | 0 | 12 |
| | WSA NSA | 0 | 7 | 0 | 7 |
| | WSA RNA | 5 | 0 | 3 | 8 |
| | Total | 2,728 | 2,083 | 1,205 | 6,015 |

^a

NPA - National Primitive Area RNA - Research Natural Area NHA - National Historic Area
 NVM - National Volcanic Monument NRA - National Recreation Area NSA - National Scenic Area
 NWA - National Wilderness Area NM - National Monument WSA - Wilderness Study Area
 NSRA - National Scenic Research Area NWSR - National Wild & Scenic Rivers
 OCD - Other Congressionally Designated Areas NGRWP - National Game Refuge/Wildlife Preserve
 (Roadless Database 2000)

This situation is generally most acute in National Scenic Areas, National Recreation Areas, National Monuments, and National Volcanic Monuments because these areas are more likely than other categories of special designated areas to feature developed recreation.

The alternatives, then, exist in an environment that is characterized by increasing demands for developed and dispersed recreation opportunities, which are often incompatible, competing for a finite resource, inventoried roadless areas. Because special designated areas

are characterized by the special values, attributes, or unique features for which they were established, the effects of the rulemaking on these areas will vary depending on each area's management emphasis.

Assumptions:

Outdoor recreation opportunities in P, SPNM, and SPM Recreation Opportunity Spectrum class settings will be available primarily on Federal lands in the future.

Because inventoried roadless areas are part of the national reservoir from which development and special designations, such as wilderness, are created, the number of roadless acres is decreasing.

The supply of P, SPNM, and SPM ROS class settings is decreasing in an environment of increasing demand.

Of the 58.5 million acres of inventoried roadless areas, 41% are covered by land management-plan prescriptions that restrict road construction and reconstruction. The other 59% are not. Those inventoried roadless areas open to road construction could be affected in the short term, and even those currently protected from road building could be affected over the long term as local conditions and situations change.

Inventoried Roadless Areas are the reservoir for future Wilderness areas.

In order to discuss cumulative effects, the EIS Team estimated the number of NFS acres outside of designated Wilderness and inventoried roadless areas to be 15 million. The purpose of this estimate was to characterize the magnitude of a concept; therefore, it was not necessary to collect precise data.

The proposed Roads Policy could cause a major shift in the national baseline for recreation supply. The most common scenario associated with road decommissioning is to reduce road density, not to create unroaded areas. However, the possibility exists that there could be an increase of 10%, or 8.4 million acres, of unroaded areas created over the next 40 years due to road decommissioning. This could increase the number of acres providing an elevated level of protection and a reduced level of threat from resource management activities.

It is estimated that 10%, or 5.8 million acres, of inventoried roadless areas could be designated as Wilderness in the next 40 years. This amount includes the 7.2 % (4.2 million acres) of inventoried roadless acres already recommended for Wilderness designation in land management plans. It also assumes that an additional 2.8% (1.6 million acres) of inventoried roadless areas could be added to the National Wilderness Preservation System.

Information Used:

Wilderness

Information regarding threats to potential and designated Wilderness has never been collected, however, a highly accurate predictive scenario was built for comparison of the alternatives and cumulative effects. The scenario was based on known information such as percentage of restrictive land management plan prescriptions, past resource management practices, acres and location of designated Wilderness areas, percentage of inventoried roadless areas adjacent to wilderness, trends in recreation use, demand and availability of supply for recreation and other uses, and conditions that influence shifts in human use patterns. The foundation for discussion in this document is derived from reference sources, such as those cited throughout this report; formal data calls to Forest Service regions during the analysis process; informal queries of and peer review by Forest Service practicing professionals in the field and Washington Office, and the professional, technical, and working knowledge of the author (see Chapter 4 – Preparers and Contributors).

Special Designated Areas

Recreation use, including use facilitated by outfitters and guides, data have never been collected specifically for inventoried roadless areas within special designated areas. As a result, estimates of environmental consequences based on recreation use cannot be made with any degree of precision. However, comparisons of the alternatives can be effectively made based on known factors such as trends in recreation use, availability of supply, demand for specific recreation opportunities, conditions that influence shifts in recreation patterns, interrelationships with surrounding communities, and influences on special designated areas by its legislation, executive order, or land management plan designation. *Outdoor Recreation in American Life: A National assessment of Demand and Supply Trends* (Cordell and others 1999) and other reference sources cited throughout this report provided comprehensive and current information. Informal queries of and peer review by practicing Forest Service professionals in the field and Washington Office provided expert testimony regarding trends, demand, supply, and conditions relevant to Special Designated Areas at this time. Formal data calls to Forest Service Regions during the analysis process provided information regarding supply, miles of roads, and special use authorizations in or proposed to be in inventoried roadless areas. Data Table 1 was created to highlight information applicable to special designated areas. The author has a professional, technical, and working knowledge of the subject matter (see Chapter 4 - Preparers and Contributors).

Methodology:

Wilderness

The Forest Service manages the Wilderness resource to ensure that its character and values are dominant and enduring. Its management must be consistent over time and between areas to ensure the area's present and future availability and enjoyment as Wilderness. It is

important to manage Wilderness to ensure that human influence does not impede the free play of natural forces or interfere with natural succession in the ecosystems, and to ensure that each Wilderness area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation. Wilderness areas are managed as one resource rather than a series of separate resources (USDA Forest Service 1990).

It is understood that Congress did not intend for Wilderness designations to compel the creation of protective perimeters or buffer zones around Wilderness Areas.² Congress has made it clear that hearing or seeing non-wilderness activities from within a Wilderness Area shall not, as a sole reason, preclude activities or uses up to the boundary. However, road construction, timber harvesting, developed recreation, and many other high intensity resource management activities outside a Wilderness boundary could have an effect on the wilderness values or characteristics within the boundary. Even though Congress did not intend for the Forest Service to manage differently outside a Wilderness boundary, inventoried roadless areas do exist adjacent to or nearby Wilderness Areas and serve as a transition between Wilderness and developed or road based activities. If road construction and reconstruction are prohibited in inventoried roadless areas, then the potential threats to wilderness values and characteristics within the Wilderness boundary will be diminished.

Future Wilderness areas are usually identified and recommended in land management plans. Inventoried roadless areas are part of the national reservoir from which future Wilderness areas are created. If road construction and reconstruction are prohibited in inventoried roadless areas then threats to the national reservoir of potential Wilderness areas are greatly reduced.

The methodology used to evaluate alternatives and describe cumulative effects in this report was to describe conditions that would threaten wilderness values and characteristics of potential and existing Wilderness Areas. Threat to Wilderness character and values by activities or other sources is the measure for evaluating the alternatives. Both potential (identified in a land management plan) and existing designated Wilderness could be threatened when resource management activities change human patterns or ecological values in a manner that diminishes Wilderness character or values. In general, maximizing the national prohibitions would result in a low level of threat, while alternatives with fewer prohibitions would result in a higher level of threat. Therefore, relative level of threat between the alternatives will be used to describe effects on potential additions to the NWPS and existing Wilderness areas

Another affect analyzed was the potential threat to inventoried roadless areas not covered by a management prescription that maintains Wilderness attributes. Inventoried roadless areas are the reservoir for future designated Wilderness Areas. Alternatives that provide the highest level of protection would result in the least amount of threat to the reservoir for future Wilderness areas; conversely, those that provide the least protection would result in greater threat, thereby reducing the size of the reservoir.

² Congress repeatedly reinforced its intention that wilderness designations do not compel the creation of buffer zones around wilderness areas in several state wilderness acts passed in the 1980's.

Other Special Designated Areas

Special designated areas are managed to emphasize specific values identified in their enabling legislation or order. How these values or special attributes would be affected by the prohibitions was a factor in comparing the alternatives. In addition, the basis for describing the affected environment and analyzing alternatives in the environmental consequences for special designated areas was the Recreation Opportunity Spectrum (ROS).

ROS provides a framework for defining the types of outdoor recreation opportunities that the public might desire, and it identifies the portion of the spectrum a given national forest might be able to provide. ROS was developed in the late seventies by collaboration between Forest Service scientists at the Rocky Mountain Research Station, academic leaders in the recreation and leisure disciplines, and practicing recreation professionals. This effort came to fruition in 1982, with the publication of the ROS Users Guide (USDA Forest Service 1982) followed by Forest Service Manual and Handbook direction.

Since then planning for recreation opportunities using ROS has been conducted as part of the land management planning process. The recreation input includes factors such as supply and demand, issues, and identification of alternatives. Issue responses to alternatives are assessed to develop management area prescriptions designed to ensure the appropriate recreation experience through setting and activity management on a national forest. ROS classes are developed at a scale suitable for recreation management, land management planning, and site specific project planning (USDA Forest Service 1982). Compatibility between ROS settings and special designated area emphases was a measure used in alternative evaluation.

The alternatives are compared by the degree to which they maintain the existing supply of inventoried roadless areas coupled with the appropriateness of that supply for both dispersed and developed recreation opportunities. The special designated areas in which management emphasizes dispersed recreation would benefit more from alternatives that create safeguards to maintain the most inventoried roadless areas in a roadless condition. The special designated areas in which management emphasizes greater visitor access and developed recreation would benefit more from alternatives that place the fewest restrictions on access and other management.

Results:

Alternative 1

No Action; No Prohibitions

Alternative 2

*Prohibit Road Construction and
Reconstruction Within Inventoried Roadless Areas*

Alternative 3

*Prohibit Road Construction, Reconstruction,
and Timber Harvest Except for Stewardship
Purposes Within Inventoried Roadless Areas*

Alternative 4

*Prohibit Road Construction, Reconstruction and
All Timber Cutting Within Inventoried Roadless Areas*

Wilderness

Threat to Wilderness character and values by activities or other sources is the measure for evaluating the alternatives. Both potential (identified in a land management plan) and existing designated Wilderness could be threatened when resource management activities change human patterns or ecological values in a manner that diminishes Wilderness character or values. In general, maximizing the national prohibitions would result in a low level of threat, while alternatives with fewer prohibitions would result in a higher level of threat. Therefore, relative level of threat between the alternatives will be used to describe effects on potential additions to the NWPS and existing Wilderness areas

Another affect analyzed was the potential threat to inventoried roadless areas not covered by a management prescription that maintains Wilderness attributes. Inventoried roadless areas are the reservoir for future designated Wilderness Areas. Alternatives that provide the highest level of protection would result in the least amount of threat to the reservoir for future Wilderness areas; conversely, those that provide the least protection would result in greater threat, thereby reducing the size of the reservoir.

Alternative 1 – No Action

Alternative 1 would provide the least protection because no national prohibitions would be applied to inventoried roadless areas. Over time, the supply of inventoried roadless areas available would decrease resulting in more developed recreation use, fewer opportunities for Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized recreation, increased resource management activity, and reductions in the size of lands available for uninterrupted natural processes. This trend of shifting human patterns, increased resource management activity, and reduced ecological integrity in and around potential and designated Wilderness might increase the threat to the Wilderness character of these areas. In addition, this alternative would provide the least protection for inventoried roadless areas in general, causing the greatest reduction of the reservoir for future Wilderness areas. Alternative 1 would pose the highest threat to designated and potential Wilderness in relation to Alternatives 2, 3, and 4.

Alternatives 2 through 4

Alternatives 2 and 3 would allow timber harvesting that could result in short term disturbances, such as impacts on the visual resource, displacement of wildlife, or shifts in recreation use. However, the amount and types of timber harvest allowed in inventoried roadless areas would enhance vegetative health and reduce fuel loading, thereby providing protection from pests, diseases, and large wildland fires spreading into designated Wilderness. No short-term disturbances from commercial timber harvesting or long-term benefits from timber harvesting for stewardship purposes would accrue under Alternative 4.

Overall, inventoried roadless areas would remain intact in and around potential and designated Wilderness. Human use would increase in inventoried roadless areas, but at a much slower pace than under Alternative 1. Patterns of recreation and other uses would be managed to maintain or enhance roadless characteristics. Large tracts of land where natural processes occur uninterrupted would be maintained. Effects on the reservoir for future Wilderness would be minimized. All action alternatives would provide substantial protection from threats and, from a national perspective, are barely distinguishable from each other. Threat to Wilderness character in potential and existing Wilderness is rated low under these alternatives.

Effects of Social and Economic Mitigation on Wilderness

Some road construction and reconstruction associated with mineral development would be allowed in inventoried roadless areas. The amount of activity associated with mineral exploration and development would create very little threat to designated Wilderness. However, those areas that are developed would reduce the reservoir of roadless area available for future designation of Wilderness. Even so, the effects from a national perspective would be minimal.

Other Special Designated Areas

The alternatives are compared by the degree to which they maintain the existing supply of inventoried roadless areas coupled with the appropriateness of that supply for both dispersed and developed recreation opportunities. The special designated areas in which management emphasizes dispersed recreation would benefit more from alternatives that create safeguards to maintain the most inventoried roadless areas in a roadless condition. The special designated areas in which management emphasizes greater visitor access and developed recreation would benefit more from alternatives that place the fewest restrictions on access and other management.

Alternative 1 – No Action

This alternative would provide the most flexibility to local land managers of special designated areas to determine the long-term disposition of inventoried roadless areas to meet developed and dispersed recreation needs within the context of the law or order that established the special designated area.

In special designated areas, about 1.2 million acres (20%) are in areas with management prescriptions that permit road construction. These areas are available for resource management activities that could degrade their roadless characteristics. If road construction, timber harvesting, and other resource management activities occur in inventoried roadless

areas (where land management plan prescriptions allow it), then the supply of acres available for dispersed recreation opportunities in SPM, SPNM, and P classes (including outfitter and guide assisted dispersed recreation opportunities) would diminish. This would also result in a decline in the land base on which to resolve conflicts between motorized and non-motorized dispersed recreation activities. Increased opportunities to shift from Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized settings to road based and developed classes of recreation would exist under this alternative.

Alternative 1 would have the least direct effect on the management of National Game Refuges/Wildlife Preserves, National Scenic Research Areas, and National Volcanic Monuments categories of special designated areas. Nationally, these categories have the fewest acres of inventoried roadless area and relatively more roadless areas with management prescriptions that permit road construction. This alternative would not change management of areas where management prescriptions already prohibit road construction. However, under this alternative there would be no safeguards preventing management prescriptions from being changed to permit road construction when land management plans are revised. Under Alternative 1, projects associated with private entities that hold special use authorizations (such as resorts and marinas) would proceed with planning even if those plans could affect inventoried roadless areas. Implementation of those plans would depend on existing local policy and direction rather than the prohibition alternatives.

Alternatives 2 through 4

Under Alternatives 2 through 4, a national prohibition on road construction and reconstruction in inventoried roadless areas in special designated areas would apply. These alternatives would provide less flexibility than Alternative 1 to local land managers of special designated areas to determine the long-term disposition of unroaded lands to meet developed and dispersed recreation needs within the context of the law or order that established the area.

Over the long term, these alternatives would maintain the highest relative supply of lands with dispersed recreation potential. Availability of roadless areas for forest visitors seeking Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized recreation opportunities (including outfitter and guide assisted dispersed recreation) would be highest in Wilderness Study Areas, National Recreation Areas, and National Wild and Scenic River categories of special designated areas because they have the greatest number of inventoried roadless acres. A stable supply of roadless acres would result from implementing any of these alternatives. This would provide more opportunities than in Alternative 1 for resolving issues between motorized and non-motorized dispersed recreation activities.

Minor shifts in recreation use might occur because of timber harvesting allowed under Alternatives 2 and 3. For instance, most outfitters and guides prefer natural appearing landscapes, so cutover areas probably would be avoided until they grow back. On the other hand, timber harvested areas might attract use because of increased hunting, wildlife viewing, or berry picking opportunities. These shifts, however, would have little or no effect on the overall supply or availability of inventoried roadless areas maintained for P, SPNM, and SPM recreation opportunities. Therefore, Alternatives 2, 3, and 4 would have roughly equivalent effects on dispersed recreation.

Conversely, these alternatives would result in a lower supply of lands than in Alternative 1 with developed recreation potential or with access for forest visitors seeking road based recreation experiences. The effect of the prohibitions would be the same under each of these alternatives, therefore the effect of reducing the possibility of shifts from Primitive, Semi-Primitive Non-motorized, and Semi-Primitive Motorized ROS class settings to Roaded Natural or Rural experiences would be the same.

Proposed expansion of ski areas, resorts, or other recreation developments into inventoried roadless areas would be allowed to continue under existing Forest Service policies if special use permits are in existence prior to implementation of the rule and the proposed activities occur within boundaries established by the special use permit. Proposed expansion or new construction, inside or outside a special use permit boundary, in an inventoried roadless area that has been approved by a signed Record of Decision, Decision Notice, or Decision Memo before implementation of the final rule, would also not be subject to the prohibitions.

New construction or projects proposed outside the authorized special use permit boundary in inventoried roadless areas could be subject to the prohibitions depending on the type of project. For example, if a proposed project could be designed and implemented without road construction or reconstruction, it could proceed under normal Forest Service procedures in Alternative 2. If a proposed project could be designed and implemented without road construction or reconstruction and timber harvesting, it could proceed under normal Forest Service policies in Alternatives 3 and 4.

Effects of Social and Economic Mitigation on Other Special Designated Areas

Special designated areas are managed to emphasize specific values identified in their enabling legislation, order, or land management plan. Other uses are allowed in the areas to the extent that these uses are in harmony with the purpose for which the areas were designated. Road construction and reconstruction would be allowed unless these lands were withdrawn from mineral exploration and development by statute or other action. However, if it were allowed, there could be minor shifts in recreation uses and substantial deviation of the characteristics landscape in localized areas. These occurrences would be rare and would have minimal effects from a national perspective.

Conclusions:

Wilderness

Inventoried roadless areas are managed under a variety of forest prescriptions. Implementation of Alternatives 2 through 4 would help establish a uniform approach to managing all inventoried roadless areas. Because many inventoried roadless areas are adjacent to designated Wilderness areas, large tracts of land would remain roadless and essentially undeveloped under these alternatives.³ Managing these large tracts of land for

³ For example, six existing Forest Service Wilderness Areas encompass over 1 million acres each. There are 10 Wilderness plus adjacent inventoried roadless areas over 1 million acres. Twentytwo

undeveloped characteristics would be unique in a country as highly industrialized as the United States. Additionally, while a wide range of human uses and activities would be allowed, large areas would be affected solely by the forces of nature or managed to enhance the health of ecosystems. These large tracts of undisturbed lands would provide reference landscapes, biological strongholds and refuges, and intact plant and animal communities at an unparalleled scale.

In the past, inventoried roadless areas were managed as a bank for future resource development or special designation. If these areas were managed for their own inherent values, there could be less pressure to designate them as Wilderness or other special designation to shield them from development, which may reduce controversy. If an action alternative were selected, the supply of inventoried roadless areas would be stabilized at close to 58.5 million acres.

Data are unavailable to identify the number of available NFS acres outside designated Wilderness and inventoried roadless areas that are restricted from road construction and reconstruction or other types of development. However, a conservative estimate would place this figure at approximately 15 million additional acres that have land management plans with some form of road construction or development restrictions. Although this is a rough estimate, the total acreage of inventoried roadless areas and other NFS lands with restrictions on road construction can serve as a baseline for discussion of cumulative effects. In general, as the number of NFS lands that have road construction and other development restrictions increases, the level of threat to potential and designated Wilderness areas decreases. Areas without restriction total 84.1 million acres. These lands are more of a threat to existing and potential Wilderness areas because they generally have management prescriptions that allow a wide range of resource management and development activities.

Within the context of NFS lands, analysis identified factors that may have major, minor, or no effect on the baseline. The reasonable foreseeable factors that could cause a major shift in the baseline supply of Wilderness acres are the proposed Roads Policy and new Wilderness designations. The most common scenario associated with road decommissioning under the proposed Roads Policy would be to reduce road density, not create roadless areas. However, if a conservative estimate were realized, there would be an increase of 10%, or 8.4 million acres, of roadless areas created over the next 40 years due to road decommissioning. This would increase the number of acres providing an elevated level of protection and a reduced level of threat from resource management activities. This action could change human patterns or environmental conditions in a manner that enhances the character or values of designated or potential Wilderness.

The other factor that would influence a major shift in the baseline is Wilderness designation. It is estimated that 10%, or 5.8 million acres, of inventoried roadless areas could be designated as Wilderness in the next 40 years. This amount includes the 7.2% (4.2 million acres) of inventoried roadless acres already recommended for Wilderness designation in land management plans. It also assumes that an additional 2.8% (1.6 million acres) of inventoried roadless areas could be added to the National Wilderness Preservation System. This would maintain the baseline but increase protection from threats to Wilderness character. This

existing Wilderness Areas encompass 250,000 to 1,000,000 acres in size. There are 33 Wilderness plus adjacent inventoried roadless areas 250,000 to 1,000,000 acres in size. (Figure 3-27)

would decrease the number of inventoried roadless areas or other NFS lands with development restrictions. However, the net benefit of increased protection provided by Wilderness designation would increase.

Factors that might have minor effects include lands acquired through purchase, exchange, or legislation and reduced access because of private property, fish and wildlife protection, or other types of closures. These factors may cause the level of threat to designated or potential wilderness to shift in localized areas or cause small incremental shifts over long periods. However, they typically would not cause a major shift in the national baseline of protection.

Actions by other land managing agencies can be important factors in providing additional protection from threats to existing and potential Wilderness. For example, designated Wilderness and other special areas managed by the National Park Service and Bureau of Land Management are often adjacent to NFS lands or near enough to complement each Agency's effort to minimize threats to potential and designated Wilderness. In many cases, special management areas function as transition areas between lands managed to allow for natural ecological processes and lands managed more intensely for human uses. These situations add additional protection from threats to potential and designated Wilderness.

There is considerable controversy over expansion of the National Wilderness Preservation System. However, potential for additions from lands managed by the Forest Service, National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service, and, to a lesser extent, other Federal agencies remains fairly high. There continues to be high public and political interest in creating a wide range of special designations throughout the Federal lands that would manage for particular amenity or ecological resources. Additional designations of lands for special purposes would provide additional protection from threats to potential and designated Wilderness areas. Because of increased development of private lands and growing public interest in maintaining open space, the trend to create special areas on Federal lands would most likely continue for the first decade unless there was a national or global crisis such as a recession or war. But, because Federal lands are a finite resource and there is continued interest in maintaining and creating open space, protecting the environment, and providing for a wide range of recreation opportunities and amenity values, the emphasis would most likely shift from Federal lands to private, State, and locally managed lands in the second decade.

Other Special Designated Areas

Inventoried roadless areas in special designated areas are a subset of all inventoried roadless areas included in this rulemaking. Each special designated area also has an overlaying level of protection based on what type of designation was bestowed on it by Congress or by proclamation. Refer to the other sections in Chapter 3 of the FEIS for discussions on cumulative effects. These references would apply when there is no conflict with the enabling legislation or order.

References Cited:

Abbott, S. and S. Sheridan. 1997. Building Gateway Partnerships, A Process for Shaping the Future of Your Community. Rivers, Trails, and Conservation Assistance. U. S. Department of Interior, National Park Service, Seattle, Washington.

Bowker, J. M.; D.B.K. English and H.K. Cordell. 1999. Projections of Outdoor Recreation Participation to 2050. In: Cordell, H.K., principal investigator. Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends. Champaign, Illinois: Sagamore Press. pp. 323-350.

Cordell, H. K. 1999. Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends. Champaign, Illinois: Sagamore Publishing.

Driver, B. L., P. J. Brown, and G. L. Peterson. 1991. Benefits of Leisure. State College, Pennsylvania: Venture Publishing.

Hendee, J. C., G. H. Stankey, and R. C. Lucas. 1990. Wilderness Management. Golden, Colorado: North American Press.

USDA, Forest Service. 1997. Guidebook on Outfitting and Guiding. Northeastern Region. 219 p.

USDA, 1992. Land and Resource Management Planning Handbook: Chapter 7 – Wilderness evaluation. Washington, D.C. 16 p.

USDA, Forest Service. 1997. Land and Resource Management Plan, Tongass National Forest. Alaska Region.

USDA, Forest Service. 1995. Landscape Aesthetics: A Handbook for Scenery Management. Washington, D.C. 34 p.

USDA, Forest Service. 1982. ROS Users Guide (FSM 2311). Recreation, Heritage, and Wilderness Resources. Washington, D.C. 38 p.

USDA, Forest Service. 1990. Chapter 2320 – Wilderness Management (FSM). Washington, D. C. 26 pp.

Wilderness Act (Public Law 88-577). 1964. An Act of the 88th Congress, S. 4.

Definitions:

Backcountry – A generic term that refers to areas that are relatively unmodified and usually accessible only by foot, horse, watercraft, or Off Highway Vehicle (OHV).

Carrying capacity – A measure used to signify the optimum use that the area can accommodate without having unacceptable degradation of resources or undesirable social

interaction, in accordance with specified standards usually found in the land and resource management plan.

Developed recreation – Activities that are consistent with the settings and experiences identified with the Roaded Natural (RN), Rural (R), and Urban (U) classes of the Recreation Opportunity Spectrum. These activities are usually associated with an area that has been improved or developed for recreation, such as campgrounds and picnic areas, scenic overlooks and interpretive sites, or visitor centers and resorts.

Dispersed recreation – Activities usually associated with backcountry and trails and are consistent with the settings and experiences identified with Primitive (P), Semi-Primitive Non-Motorized (SPNM), and Semi-Primitive Motorized (SPM) classes of the Recreation Opportunity Spectrum. Examples of these activities include hiking, snowmobiling, mountain biking, wilderness use, backpacking, horseback riding, and OHV use.

Forest road or trail – Any road or trail wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.

Gateway communities – Communities that are economically and socially interdependent on the associated public lands. Proximity to these lands contributes to the quality of life and sense of place for residents and visitors.

Inventoried roadless area – Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service's Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. These areas are identified in a set of inventoried roadless area maps, contained in *Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2*, dated November 2000, which are held at the National headquarters office of the Forest Service.

Motorized equipment – Machines that use a motor, engine, or other nonliving power sources. This includes, but is not limited to, chain saws, aircraft, snowmobiles, generators, motorboats, and motor vehicles. It does not include small battery or gas powered hand carried devices such as shavers, wristwatches, flashlights, cameras, stoves, or other similar small equipment.

Primitive (P) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that is essentially an unmodified natural environment of large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

Road – A motor vehicle travelway over 50 inches wide, except those designated and managed as a trail. A road may be classified, unclassified, or temporary.

Road based recreation – Activities that are normally associated with classified roads and are consistent with the settings and experiences identified with Semi-Primitive Motorized

(SPM), Roaded Natural (RN), Rural (R), and Urban (U) classes of the Recreation Opportunity Spectrum. Examples of these activities include car camping and picnicking, gathering berries and firewood, driving for pleasure, wildlife viewing, and OHV use.

Roaded Natural (RN) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has predominantly natural-appearing environments with moderate evidences of the sights and sounds of humans. Such evidences are usually in harmony with the natural environment. Interaction between users may be low to moderate, but evidence of other users is prevalent. Resource modification and practices are evident but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and facilities design.

Roadless areas – For the purposes of this EIS, a generic term that includes inventoried roadless area and unroaded areas.

Roadless characteristics – Roadless area characteristics include the following:

Soil, water, and air

Sources of public drinking water

Diversity of plant and animal communities

Habitat for threatened, endangered, proposed, candidate, and sensitive species, and for those species dependent on large, undisturbed areas of land

Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of recreation opportunities

Reference landscapes

Landscape character and scenic integrity

Traditional cultural properties and sacred sites

Other locally identified unique characteristics

Rural (R) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area with a substantially modified natural environment. Sights and sounds of humans are readily evident, and the interaction between users is moderate to high. A considerable number of facilities are designed for use by large numbers of people. Facilities for intensified motorized use and parking are available.

Semi-Primitive Motorized (SPM) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted.

Semi-Primitive Non-Motorized (SPNM) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize an area that has a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but they are subtle. Motorized use is not permitted.

Sense of place – The aesthetic, nostalgic, or spiritual effects of physical locations on humans based on personal, use-oriented or attachment-oriented relationships between individuals and

those locations. The meaning, values, and feelings that people associate with physical locations because of their experiences there.

Trail – A pathway for travel by foot, stock, or trail vehicles.

Urban (U) – A definition used in the Recreation Opportunity Spectrum (ROS) to characterize a substantially urbanized environment, although the background may have natural appearing elements. Affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. Large numbers of users can be expected, both on-site and in nearby areas. Facilities for highly intensified motor vehicle use and parking are available. Regimentation and controls are obvious and numerous.

Wilderness – A designated area defined in the Wilderness Act of 1964 in the following way: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which – (a) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (c) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (d) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Wildland – Land other than that dedicated for other uses such as agriculture, urban, mining, or parks.